

Work Order ID 83219

April-13-12 1:42:22 PM

83219

U/R

Page 1

Item ID: D4154-041
Revision ID:
Item Name: Wearplate Assembly

Accept

N900040100

Setup Start *NS1*
Stop *NS2*

Start Date: 13/04/2012 Start Qty: 5.00 *5*
Required Date: 27/04/2012 Req'd Qty: 5.00 *5*

Cust Item ID:
Customer:

Reference:

Approvals: Process Plan: MLJ Date: 12/04/13 Tooling: 1
QC: Date: SPC (Y/N):

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4154	B U/R <u>C</u> <u>A</u>

100 0.00

100

Large Fab

Large Fab

Memo

0.00

1- on D4155-1, fill cut outs with hardcoat welding rod as per dwg D4154

DT9756

2059 B Hardcoat Welding Rod
BATCH#: m 120030

2-weld D4155-1 to wearplate by positioning holes together as per dwg D4154

304 S.S. Welding Rod
BATCH#: m 120013

3-Transfer drill holes in bar

4- Use DT9684 to check fit after welding

(3) ml 12-06-20

110

QC9- Inspect visual per QSI004- Fusion Welds 0.00

110

QC

Quality Control

Memo

0.00

Pl 12-06-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83219

April-13-12 1:42:22 PM

83219

Page 2

Item ID: D4154-041

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Wearplate Assembly

Stop ***NS2***

Start Date: 13/04/2012 Start Qty: 5.00

5

Cust Item ID:

Required Date: 27/04/2012 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC5- Inspect part completeness to step on W/O

0.00

120

QC

Memo

0.00

Quality Control

150

0.00

150

Small Fab

Memo

0.00

Small Fab

1- After finish, coat entire top (concave) surface as per note 11 on sheet 2 of 3
dwg D4154.

B121960

160

QC5- Inspect part completeness to step on W/O

0.00

160

QC

Memo

0.00

Quality Control

(T3)

AR

12-6-21

(3)

3

φ

B121960

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83219

April-13-12 1:42:22 PM

83219

Page 3

Item ID: D4154-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Wearplate Assembly

Stop ***NS2***

Start Date: 13/04/2012 Start Qty: 5.00

5

Cust Item ID:

Required Date: 27/04/2012 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170

Identify as per dwg & Stock Location: FP-1

0.00

170

Packaging

Memo

0.00

Packaging

x3 4 12/06/2012

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

12/06/2012mk
12-06-21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-13-12 1:43:56 PM

Page 1

Work Order ID: 83219

83219

Parent Item: D4154-041

D4154-041

Parent Item Name: Wearplate Assembly

Start Date: 13/04/2012

Required Date: 27/04/2012

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP Rev:A 10.09.21 new issue DD verf:EC
10.11.04 added DT9684 DD verf:EC
per dwg revB DD verf:EC

IPP Rev:B
IPP Rev:C 11.04.14 as

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4154-1		Manufactured	No			100	Each	1.0000	1	5			
---------	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--

D4154-1
Plate

84746 X 6

**

12-06-12

JBL

Location

Loc Qty

Loc Code

WA

1

66312

1

D4155-1		Manufactured	No			100	Each	0.0000	1	5			
---------	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--

D4155-1
Bar

83218 X 6

**

12-06-12

JBL

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

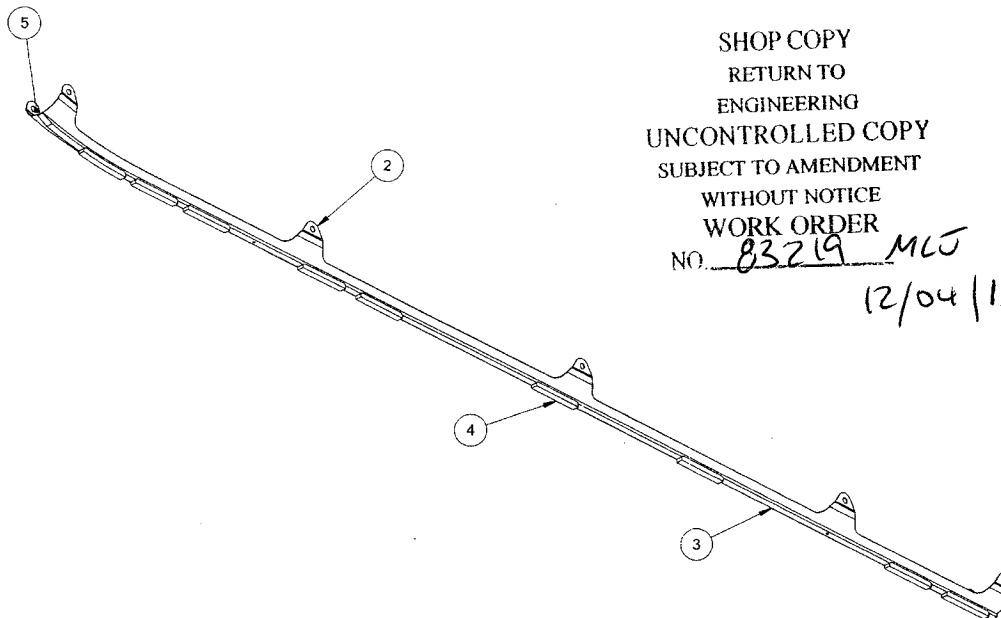
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 83219 MLJ
 12/04/13



D4154-041 WEARPLATE ASSEMBLY

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	X	D4154-041	WEARPLATE ASSEMBLY
2	1	D4154-1	PLATE
3	1	D4155-1	BAR
4	A/R	2059B	HARDCOAT, (SEE NOTE 9, SHT 2)
5	A/R	4714	(SEE NOTE 11, SHT 2)

RELEASED
 2012-04-11
 [Signature]

C	REVISE NOTE 9 (ZN A8-2); ADD HARDCOAT (ZN B7-2); ADD DETAIL A (ZN C2-2)	RF	12.02.21
B	ITEM 4 WAS PR1422 (D3-1); REMOVED FINISH TO NOTE 2 (A8-2); REMOVED SECTION A-A (NO LONGER REQUIRED); REVISED D4154-1F	MB	11.04.05
A	NEW ISSUE	SC	10.07.22
REV.	DESCRIPTION	BY	DATE
DESIGN	SC	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	RF		
CHECKED	[Signature]	DRAWING NO.	REV. C
MFG. APPR.	[Signature]	D4154	SHEET 1 OF 3
APPROVED	[Signature]	TITLE	SCALE
DE APPR.	[Signature]	WEARPLATE ASSEMBLY	NTS
DATE	12.02.21	<small>COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

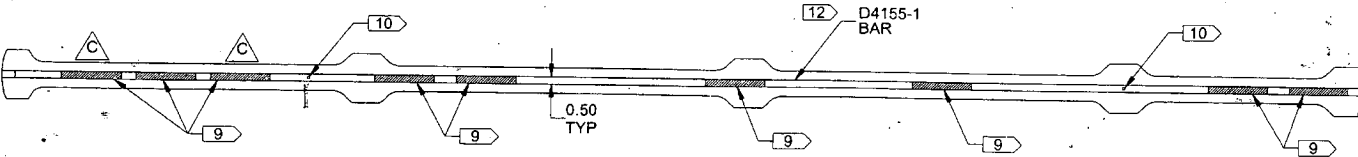
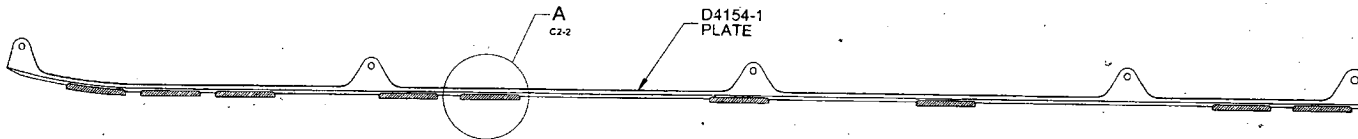
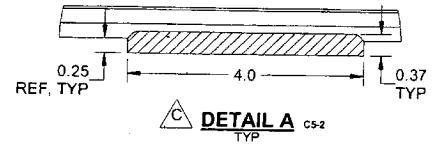
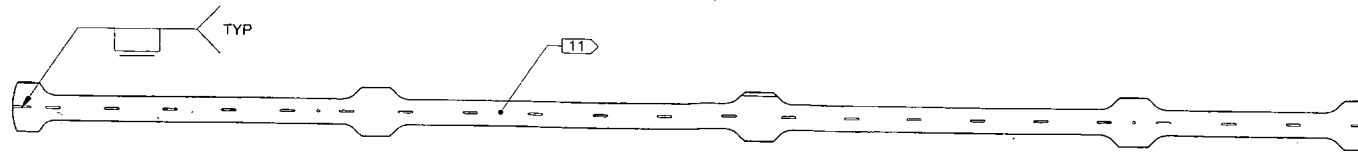
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

83219



D4154-041 WEARPLATE ASSEMBLY

RELEASED
2012-04-11

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 6.88 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.37 THICK x 0.50 WIDE, FLUSH WITH D4155-1 BAR ON LATERAL SURFACES, 9 PL
- 10) TRANSFER DRILL $\varnothing 0.188$ HOLES FROM D4154-1 PLATE TO D4155-1 BAR
- 11) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER OF PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 12) FORM TO MATCH PROFILE OF D4154-1 AT TIME OF WELDING

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	RF	D4154	SHEET 2 OF 3
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	WEARPLATE ASSEMBLY	NTS
DATE	12.02.21	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC.	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.			

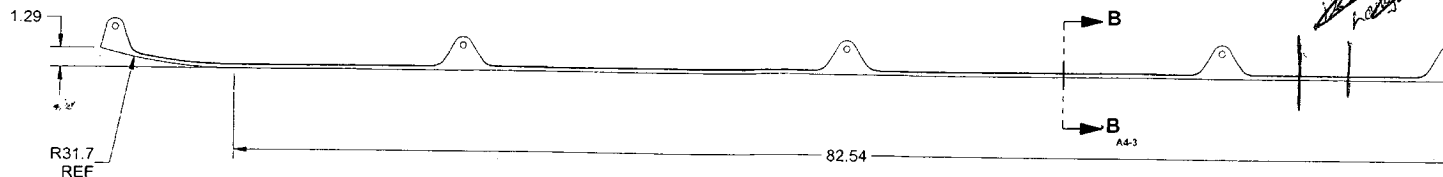
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

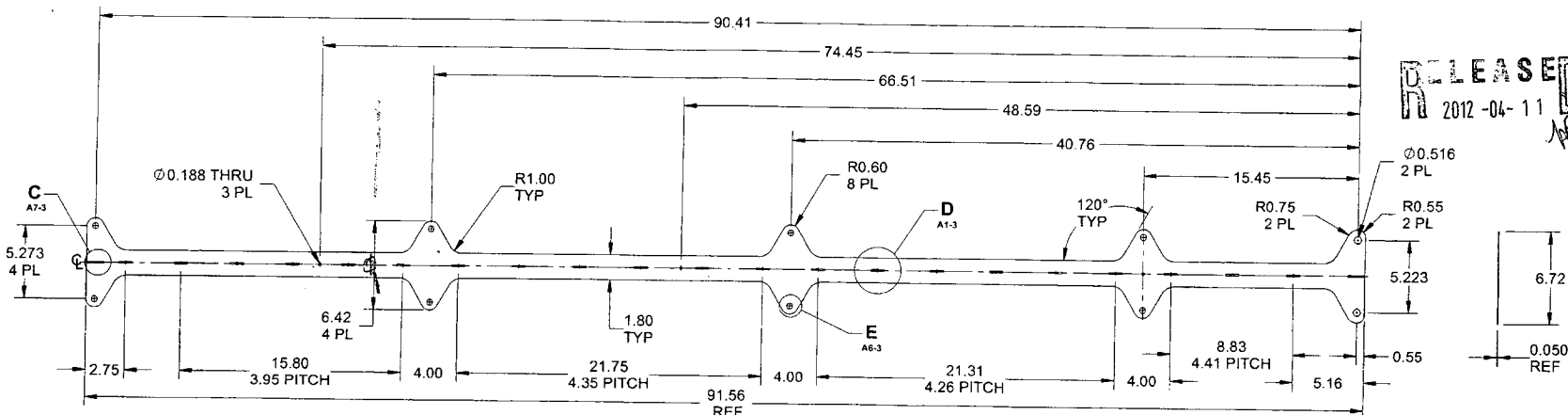
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

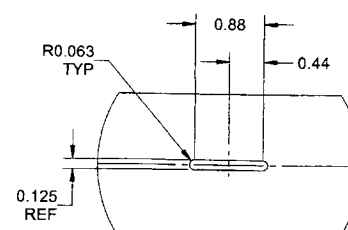
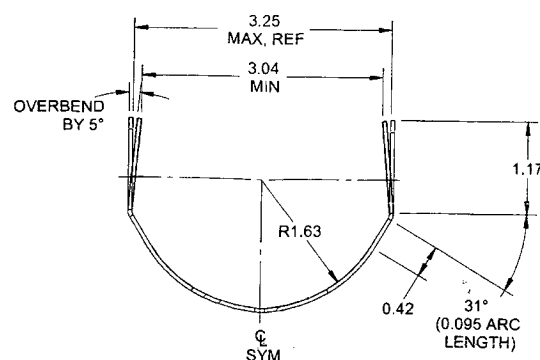
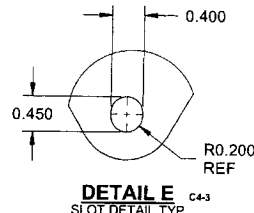
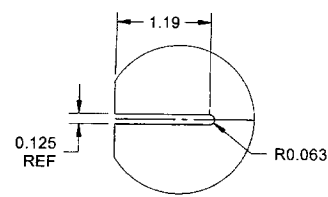
NOTE: Date & initial all entries



03219



RELEASED
2012-04-11



- NOTES:
1) MATERIAL : AISI 304/316 STAINLESS STEEL PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240 18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)
2) FINISH : NONE
3) TOLERANCES : PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS : INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES : 0.005 TO 0.010 MAX
6) IDENTIFICATION : NONE
7) WEIGHT : 2.95 lbs

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	RF	D4154	SHEET 3 OF 3
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	WEARPLATE ASSEMBLY	NTS
DATE	12.02.21	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ENGINEERING CHANGE NOTICE **DART AEROSPACE LTD**

Date: 12.05.03	Job No.: RD3403	ADR Yes/No: N	ADR Date: 12.05.03	ECN #: 12- 582
Product No.: D350-636		Created By: RF	Approved By: RF	
Product Name: Skidtube Installations		Checked By: RF		

Distribution	Reqd	Resp	Initial / Date
Production Manager / Coord.	Y	RF	
Purchasing Coord.	Y	CL	
Production Engineering Coord.	Y	EC/DD	

Distribution	Reqd	Resp	Initial / Date
DQA / QA Coord.	N		
QC Coordinator	N		
Customer Technical Support	N		
Marketing	N		
Customer Order Processing	N		

Reason for Change: Revise D4154 per Production feedback.
Product Improvement

Documents Affected:
D4154 Rev. D

PARTS MUST COMPLY



PREVIOUS PARTS SATISFACTORY



#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Eurocopter France	N			
3					

#	Engineering Actions	Reqd	Resp	Notes	Complete
4	Required Documents/Drawings Under Review	N			
5	Update Master Document List (MDL)	N		UPDATE MDL NEXT UPDATE	
6	Update Product Compatability Matrix	N			
7	Create Eurocopter Form (FEE)	N			
8	Notify TC / FAA of Change	N			
9					

#	Document Control Actions	Reqd	Resp	Notes	Complete
10	Move Electronic Files/Design Journal	Y	KJ		12.05.09 RF
11	Update Product Specification Files	N			
12	Update Approved/Preliminary Dwg PDF Files	Y	KJ		12.05.09 RF
13	Update Document Record (DR)	N			
14	Update Product Development Summary	N			
15	Update QSI 021 and/or STC Approval List	N			
16	Update Parts / STC Database	N			
17	Update / Verify ARC Database	N			
18	Create / Update Change Record Form / Item Card Database	N			
19	Create / Update PPP's	N			
20	Red Decals required?	N			
21	Update Document Control Database / Laminated Dwgs	N	RF		
22	Update Grey Project / Electronic Binder PDF Files	N	RF		
23	Update D-Part/M-Drawing/DSI/DEO Master Binders	Y	KJ		12.05.09 RF
24					

Description / Action:
Update BOM/routing for D4154 Rev. D
D4154-1F Flat Pattern per Rev. C can be rework by plugging the holes while making D4154-041 and transfer the holes using drawing D4154 Rev. D
Update D4154 water jet program per D4154 Rev. D dxf.

stlu-13 804454-1 5 - 83220
 1-66312 5 - 83219
 12-83217 8 - 83693

ECN Verified & Complete: _____ Date: _____